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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/372,009	08/11/1999	MASAO FUKUDA	8005.165US0	9911

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EXAMINER

HARMON, CHRISTOPHER R

ART UNIT	PAPER NUMBER
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3721

DATE MAILED: 02/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/372,009

Applicant(s)

FUKUDA ET AL

Examiner

Christopher R Harmon

Art Unit

3721

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 24-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuda (US 5,125,217).

Fukuda discloses a method of longitudinally sealing bags by moving heater unit 55 to and from a retracted position provided by air cylinder 78 operated by a "higher pressure" (figure 8). In order to seal the bag servo-motor 45 is adjusted to control the pressure applied on film material S; see column 6, lines 48-51. Fukuda recognizes "a person skilled in the art will realize that different combinations of motion-communicating...means can be substituted. Replacing communicating means of the servo-motor 45 with an additional air cylinder would have been obvious to one of ordinary skill in the art for effectively controlling the position and pressure of the heated belt 55.

Regarding the specified sealing pressure, Fukuda recognizes "the sealing pressure on the bag-making material can be controlled easily and accurately" (column 2, lines 6-10). In order to control the pressure applied the additional air cylinder would have to be regulated at a lower pressure.

The examiner takes OFFICIAL NOTICE that it is obvious to one of ordinary skill in the art to use a single source of air for operating multiple air cylinders.

3. Alternatively, claims 24-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuda et al. (US 5,125,217) in view of Simionato (US 4660,356).

Fukuda discloses a longitudinal sealer for a bag maker-packaging machine comprising air cylinder 4 in series with servo motor 5; sealer 11; controller 22 (figures 1 and 2); cylindrical chute 30; means 98 for bending web S into a tubular form (figure 6). The controller 22 serves to control the compressive force of heat sealing belt 12 against chute 30 with the web S between. As far as the thickness of the material is concerned, Fukuda et al. recognize this as a variable to consider (column 2, lines 61-63). It is further considered inherent to a sealing operation, as taught by Fukuda et al., to consider thickness and material of the film to be sealed in order to effectively perform the desired sealing procedure.

Fukuda does not disclose an air cylinder with both a first and second chamber and supplying both higher and lower pressures to the air cylinder at the same time. Simionato teaches selectively controlled stacked cylinders 9 and 10 (first and second chambers; figure 1), acting along the same axis. The cylinders move belts 1, slides 7, rollers 4, etc. in order to contact and move the packaging material 3 downwards along chute 2.

Simionato also teaches ducts 11-14 and respective solenoid valves 15a, 15b, 16a, 16b; control unit 17 (figure 2). The control unit effects switching of operation of cylinders 9 and 10 (column 3, line 5 – column 4, line 11). The cylinders 9 and 10 both operate to compress the material for the feeding operation. The compressive force has to be adequate in order for the device to function properly. "The stroke of the cylinders 9 can, of course, be calculated in order to adapt to tubular elements 2 of different diameters, whilst ensuring a constant feeding pressure." (column 4, lines 9-11). Thus the compressive force is considered and described by Simionato using higher and lower air pressures.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to replace the cylinder of Fukuda et al. with a dual chambered air cylinder as taught by Simionato and switching means to move the heat sealing unit between various positions.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kreager (US 4,555,289) discloses specific operations of controlling/regulating air pressures to different sources.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R Harmon whose telephone number

is 703-308-8643. The examiner can normally be reached on Monday-Thursday from 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi Rada can be reached on 703-308-2187. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3579 for regular communications and 703-305-3579 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

ch
February 20, 2002



Rinaldi I. Rada
Supervisory Patent Examiner
Group 3700